

CANADIAN JOURNAL OF PLANT SCIENCE
AUTHOR INDEX, VOLUME 61, 1981

- Aarssen, L. W., 365
Adara, O. A., 29
Ali-Khan, S. T., 463
Anand, I. J., 199
Anderson, D. T., 247
Andrews, C. J., 507
Antoun, H., 639
Arnold, N., 703

Badra, A., 829
Baenziger, H., 625
Baker, R. J., 719
Basu, P. K., 331
Bendelow, V. M., 1005
Benjamin, L. R., 205
Beverdorf, W. D., 723, 901, 1017
Bianchini, J.-P., 691
Bierderbeck, V. O., 565
Binns, M., 703
Black, W. N., 619
Bole, J., 565
Bolton, E. F., 293
Bordeleau, L. M., 639
Bowes, G. G., 401, 661
Bowley, S. R., 313
Bray, E. A., 351
Brooke, B., 939
Bubar, J. S., 161, 1001
Buchan, J. A., 727
Burrows, V. D., 459
Buttery, B. R., 191
Buzinski, S. R., 993
Buzzell, R. I., 191

Campbell, A. B., 143, 145, 147
Campbell, C. A., 549, 565
Campbell, K. W., 17
Campbell, S. J., 895
Cessna, A. J., 765
Chamberland, E., 697
Childers, W. R., 171
Chong, C., 703
Choo, T. M., 1, 9
Chow, P. N. P., 107
Christie, B. R., 313
Clarke, J. M., 25, 803, 909
Cochrane, W. P., 87
Cody, W. J., 123
Cohen, H., 811
Cook, F. I., 769, 771, 773, 777
Cordukes, W. E., 653, 761
Coupland, D., 971

Craig, D. L., 1023
Craig, W. W., 345
Crete, R., 677
Cutcliffe, J. A., 167
Czarnecki, E. M., 145, 147

Darisse, F., 682
Davidson, H. R., 549
Daynard, T. B., 843, 887, 1009
Degenhardt, D. F., 175, 185
DePauw, R. M., 255
Deschenes, J.-M., 851
Desjardins, R. L., 945
Dionne, J. L., 915
Dirks, V. A., 293
Doney, D. L., 447
Doss, R. P., 647
Downey, R. K., 199, 895
Drapeau, R., 682
Dronzek, B. L., 437
Dryden, R. D., 107
Dubuc, J.-P., 153, 851
Duczek, L. J., 727
Dunn, G. M., 583, 741

Eggers, J. L., 1025
Egli, D. B., 205
El-Meleigi, M. A., 135
Erickson, L. R., 901
Estey, R. H., 785
Evans, L. E., 463, 665, 1003

Faris, D. G., 255
Faris, M. A., 625, 955
Fernet, O., 915
Findlay, W. I., 191
Fisher, L. J., 307
Fournier, Y., 677
Fowler, D. B., 225, 543, 879
Freyman, S., 871
Fulcher, R. G., 455
Fulkerson, R. S., 929
Fulton, J. M., 425
Furgal, J. F., 1003

Gaydou, E. M., 691
Genereux, H., 417
Genest, J., 915
Gervais, P., 633
Giroux, M., 639
Goplen, B. P., 163, 1019
Gosselin, J., 417

- Greenshields, J. E. R., 163
 Grover, R., 661
 Grzesiak, S., 871
 Gubbels, G. H., 213, 575
 Gurgis, R. Y., 319
 Gusta, L. V., 543, 879
 Hall, J., 939
 Hamman, W. M., 37, 391
 Hanes, J. A., 115
 Harvey, B. L., 731
 Heaton, T. C., 219
 Heeney, H. B., 325, 407
 Hergert, G. B., 1013
 Hikichi, M., 751
 Hobbs, E. H., 837
 Holt, N. W., 515
 Housley, T. L., 525
 Hsiao, A. I., 115
 Hume, D. J., 265, 499, 1017
 Hutcheson, D. S., 895
 Ismail, A. A., 61, 961
 Jackson, H. R., 459
 Jackson, L. P., 475
 Jarvis, W. R., 1027
 Jaworski, C. A., 413
 Kannenberg, L. W., 1, 9, 29
 Kasha, K. J., 17
 Kebede, Y., 265
 Kenaschuk, E. O., 575
 Kerr, E. A., 471, 487, 769, 771, 773, 777, 779
 Keys, C. H., 241
 Khan, S. U., 325, 407
 Kilcher, M. R., 711
 Kirkland, K. J., 241
 Kirleis, A. W., 525
 Klinck, H. R., 153, 829
 Klisiewicz, J. M., 219
 Knipfel, J. E., 609
 Knoblauch, C. J., 995, 997
 Kondra, Z. P., 175, 185
 Kosmolak, F. G., 149
 Kovacs, M., 149
 Krogman, K. K., 837
 Kruger, J. E., 817
 LaBerge, D. E., 535, 859
 Lafond, G., 463, 665
 Lindwall, C. W., 247
 Langille, J. E., 161, 1001
 Lareau, M. J., 757
 Lawrence, T., 467, 609, 735
 Layne, R. E. C., 157
 Lea, H. Z., 741
 Leggett, J. E., 205
 Leisle, D., 149
 Leyshon, A. J., 711
 Lin, W. C., 965
 Liptay, A., 413
 Long, B. J., 583
 Looney, N. E., 87, 751
 Lowe, R. H., 135
 Loy, J. B., 673
 MacLeod, J. A., 1001
 Major, D. J., 37, 871
 Major, H., 45
 Marchylo, B. A., 535, 859
 McBean, D. S., 993
 McBlain, B. A., 499
 McElgunn, J. D., 711
 McGregor, D. I., 275
 McKenzie, J. S., 473
 McKersie, B. D., 53, 337
 McLean, A., 939
 McLeod, J. G., 993
 McNeill, J., 479
 McRae, K. B., 619
 McVetty, P. B. E., 1003
 Metcalfe, D. R., 1005
 Molnar, J. M., 965
 Morse, P. M., 799
 Moyer, J. R., 107
 Muldoon, J. F., 843, 887
 Mulligan, G. A., 93, 977
 Munro, D. B., 93, 977
 Narasimhalu, P., 619
 Nass, H. G., 161, 283
 Neish, G. A., 811
 Nicholaichuk, W., 565
 Ohm, H. W., 525
 Ormrod, D. P., 345
 Otto, B. E., 781
 Ouellet, C. E., 945
 Ouellet, R., 639
 O'Donovan, J. T., 391
 O'Sullivan, P. A., 383, 391
 Panciera, M. T., 929
 Pandeya, R. S., 791, 795
 Pankiw, P., 473
 Parsons, L. R., 351
 Patterson, F. L., 525
 Peabody, D. V., 971
 Pelletier, G. J., 153
 Pelletier, G., 915

- Phatak, S. C., 413
 Pomeroy, M. K., 507
 Poysa, V. W., 995, 997
 Price, K., 757
 Pusey, P. L., 781
 Quiros, C. F., 745
 Rabarisoa, I., 691
 Reaume, G. E., 779
 Reinbergs, E., 995, 997
 Rioux, R., 417
 Rood, S. B., 871
 Rossnagel, B. G., 731
 Rousselle, G. L., 757
 Routley, D. G., 583
 Rowe, D. E., 319
 Roy, G., 915
 Sabo, F. E., 955
 Sampson, D. R., 455
 Sanderson, J. B., 1009
 Scheltgen, J., 751
 Sheen, S. J., 135
 Shelford, J. A., 307
 Siemans, B., 473
 Skinner, J., 307
 Slinkard, A. E., 733
 Smagula, J. M., 61, 961
 Smeltzer, G. G., 161, 1001
 Sosulski, F. W., 515
 Sterling, J. D. E., 283
 Stout, D. G., 601, 939
 St-Pierre, C. A., 153, 633
 Sutor, R. W., 171
 Suzuki, M., 167, 595
 Tan, C. S., 425
 Terhune, R. P., 625
 Theurer, J. C., 447
 Thompson, B. K., 799
 Thompson, L. S., 595
 Thorpe, H. J., 1027
 Tollenaar, M., 1009
 Tomes, D. T., 337
 Tremblay, A., 915
 Tsujita, M. J., 345
 Tu, J. C., 231
 Tyler, N. J., 543, 879
 Tzean, S. S., 785
 Ukrainetz, H., 565
 Voldeng, H. D., 901, 1013
 Vrain, T. C., 677
 Wagner, V., 123
 Wallen, V. R., 459
 Warder, F. G., 735
 Warren, V., 325, 407
 Watts, B. M., 437
 Webster, D. H., 73
 Weiss, J., 723
 White, F. H., 791, 795
 Williams, C. J., 255, 653
 Williams, R. J., 601
 Wilson, C. L., 781
 Winch, J. E., 45
 Winkleman, G. E., 549, 735
 Winter, K. A., 619
 Wyse, R. E., 447
 Yamamoto, S., 337
 Yarborough, D. E., 61
 Zack, C. D., 673
 Zurcher, P., 307



CANADIAN JOURNAL OF PLANT SCIENCE
SUBJECT INDEX, VOLUME 61, 1981

- Additive and complete dominance effects, on response to S_1 selection, 9
on response to mass selection, 1
- Advection, effect on evapotranspiration and leaf water status of alfalfa, 601
- Agromyza frontella*, effect on chemical components of alfalfa, 595
- Agropyron desertorum* (See Wheatgrass (crested))
- Agropyron intermedium* (See Wheatgrass (intermediate))
- Alfalfa, cultivar differences in potato leafhopper damage, 625
cv. Peace, 473
effect of alfalfa blotch leafminer on chemical components, 595
effect of climatic factors on cold hardiness, 945
effect of N and S on aerial mass, root mass, nodulation and nitrogenase, 639
effect of *Phytophthora megasperma* on yield and survival, 955
effect of selfing vs. crossing on seed-set, 319
evapotranspiration and leaf water status under advective conditions, 601
effect of pH, temperature and inhibitors on proteinases and peptidases in herbage, 53
seeding year management of mixtures with bird's-foot trefoil, 929
seed-set correlated with pollen and ovule traits, 319
starch gel electrophoresis technique, 745
variability of seed-set due to maternal parent, 319
variances and heritability for dry matter yield, 313
- Amylase, comparison of methods of determination and effect of sprouting in wheat on levels, 817
- Apera interrupta*, weedy grass in Ontario, 479
- Apera spica-venti*, weedy grass in Ontario, 479
- Apples, automated recording of fruit pressure tests, 751
effect of annual herbicide applications, 325
fruit mineral composition and relationship to sample type, 73
herbicide rotation for weed control in mature orchards, 407
preharvest drop control by fenoprop, dichloroprop and NAA, 87
red color evaluation by a color meter, 757
- Asulam, fern control in lowbush blueberries, 475
- Atrazine, effect on the Hill reaction in chloroplasts of resistant and susceptible rape and turnip rape, 723
- Avena fatua* (See Otas (wild))
- Avena sativa* (See Oats)
- Barban, tank mixture with propanil, 383
- Barley, cultivar identification by electrophoretic analysis of hordein, 859
cultivar identification by SEM analysis of the rachilla, 535
cv. Elrose, 731
cv. Norbert, 1005
cv. Sophie, 153
effect of interplant competition on spike development of non-tillering types, 829
effect of soil moisture, seeding date and weed cover on yield, 851
genotype-environment interactions for yield, 255
grain yield response to irrigation and fertilizer, 837
moisture stress resistance and avoidance tests, 283
seasonal water requirement, 837
selection for cross pollination, 17
shattering losses after combine ripeness, 25
vomitoxin and zearalenone production by *Fusarium graminearum*, 811
water-use efficiency on dryland, 37
- Barley (winter), effect of flooding pretreatment on cold hardiness in ice encasement, 507
- Beans, nonprotein nitrogen, 515
Beans (white), cv. Ex Rico 23, 1017
Beans (broad), nonprotein nitrogen, 515
Beans (lima), nonprotein nitrogen, 515
Beans (mung), nonprotein nitrogen, 515
- Beta vulgaris* (See Sugarbeet)
- Blueberry (lowbush), effect of N and terbacil on growth, leaf nutrient content and yield, 961
effect on growth and yield of fertilization and terbacil application and of pruning method (mowing or burning), 61
fern control with asulam, 475
- Blugrass (Kentucky), effect of daylength and temperature on growth of shielded aerial stems, 653
effect of mowing and tiller orientation on leaf measurement, 1025
- Brassica campestris* (See Rape (turnip))
- Brassica napobrassica* (See Rutabagas)
- Brassica napus* (See Rape)

- Brassica oleracea* var. *capitata* (See Cabbage)
- Bromegrass, effect of rate and date of N, 619
pollen contamination in the greenhouse, 741
- Bromus inermis* (See Bromegrass)
- Buckwheat (tartary), control with propanil or propanil/MCPA, 383
- Cabbage, effect on N, P and K on yield and nitrate-N in the leaves and soil, 697
- Calamagrostis rubescens* (See Pinegrass)
- Canarygrass (reed), effect of rate and date of N, 619
- Captan, effect on emergence, nodulation, yield and protein content of lentils, 727
- Carbon dioxide, effect of CO₂ mist and high intensity light on propagation of woody ornamentals, 965
- Carrot, yield increases following use of nematocides, 677
- Carthamus lanatus* (See Safflower)
- Carthamus tinctorius* (See Safflower)
- Chickpeas, nonprotein nitrogen, 515
- Chrysanthemums, soil heating and reduced night temperature effects, 345
- Cicer arietinum* (See Chickpeas)
- Cicuta* (See Weed biology)
- Cold acclimation, effect on water relations of red osier dogwood, 351
- Cold hardness, effect of climatic factors on alfalfa, 945
effect of flooding pretreatment of winter cereals in ice incasement, 507
effect of N, P and K on winter wheat, 879
effect of salinity on winter wheat and rye, 225
effect of salt stress on winter wheat, 543
- Corn, cv. Earlivee, 471
cv. Flavorvee, 487
cv. Northernvee, 471
drought reduces effect of cool night temperatures on photosynthesis, 871
effects of stress on selection for a performance index, 29
effect of non-uniformity of seedling size and within-row uniformity on grain yield, 887
inbreeding effect on S₁ selection, 29
inheritance of cyclic hydroxamates, 583
mathematical model for leaf shape, 1009
seedling growth as affected by night temperature under drought vs. non-drought conditions, 871
S₁ per se recurrent selection for a performance index, 29
yield prediction based on climatic vectors, 293
- Corn silage, effect of plant density on yield, maturity and grain content, 843
- Cornus sericea*, water relations during cold acclimation, 351
- Cucumbers, effect of clear plastic mulch on yield and soil temperature, 683
- Curcubita maxima* (See Squash)
- Cultivar identification, epicuticular waxes on the barley rachilla via SEM analysis, 535
hordein electrophoresis in barley, 859
- Cyclic hydroxamates, inheritance in corn, 583
- Cytological microtechnique, epidermal sections and imprints using cyanoacrylate adhesive, 781
- Daucus carota* (See Carrots)
- Desiccation, effect on preharvest drying of wheat, 909
of flax with diquat, 575
- Dichlobenil, effect of annual applications in mature apple orchards, 325
effect of soil placement for control of *Equisetum arvense*, 971
herbicide rotation for weed control in mature apple orchards, 407
- Dichlorprop, control of preharvest drop in apples, 87
- Diclofop, tank mixture with propanil, 383
- Difenzoquat, tank mixture with propanil, 383
- Diquat, flax desiccation, 575
wheat desiccation, 909
- Diuron, effect of annual applications in mature apple orchards, 325
- Drought stress, resistance and avoidance in barley and wheat, 283
- Electrophoresis, technique for studying genetics and evolution in alfalfa, 745
- Elymus angustus* (See Wild ryegrass (Altai))
- Elymus junceus* (See Wild ryegrass (Russian))
- Empoasca fabae*, effectiveness of control with methoxychlor, 625
- Equisetum arvense*, relative toxicity and effect of soil placement of dichlobenil and vernolate, 971
- Equisetum* (See Weed biology)
- Erucic acid, genetics in rape, 199
- Ethephon, effect on yield and yield components in tomatoes, 413
- Euphorbia esula*, picloram residue levels needed to prevent seedling establishment, 661
- Evapotranspiration, estimated from irrigated crops, 425
- Fababeans, cv. Aladin, 1003
nonprotein nitrogen, 515

- Fagopyrum tataricum* (See Buckwheat (tartary))
 Fallow, minimum tillage systems evaluated, 247
 Fatty acid, content of seed and aril oil of *Ravenala madagascariensis*, 691
 Fenoprop, control of preharvest drop in apples, 87
 Fescue (red), cv. Saltol, a salt-tolerant cultivar, 761
Festuca rubra (See Fescue (red))
 Flamprop, tank mixture with propanil, 383
 Flax, desiccation with diquat, 575
 Forage digestibility, estimated by infrared reflectance and effect of species, grind and moisture, 45
 Forage nitrogen, estimated by infrared reflectance and effect of species, grind and moisture, 45
 Foxtail (green), control with propanil or propanil/MCPA, 383
Fusarium graminearum, vomitoxin and zearalenone production by winter wheat, barley and in vitro, 811
Fusarium oxysporum, root rot escape by grafting susceptible scion on resistant rootstocks of tomatoes, 1027
 Genotype-environment interactions, cereal yields in areas with variable frost-free periods, 255
 Gluten strength, association with glume color and gliadin proteins of durum, 149
Glycine max (See Soybeans)
 Glyphosate, desiccant on wheat, 909
 effect of non-ionic surfactants, ammonium sulfate water quality and spray volume on phytotoxicity, 391
 Grass silage, effluent losses at high moisture levels, 307
 Growth rates and duration of barley, wheat and sorghum, 37
 Harvest date, effect on nitrate accumulation of crested wheatgrass, Altai and Russian wild ryegrasses, 735
 effect on yield and digestibility of crested wheatgrass, Altai and Russian wild ryegrasses, 609
 Heritability, effect on response to S_1 selection, 9
 effect on response to mass selection, 1
Hordeum vulgare (See Barley)
Hypochoeris radicata, biology, 365
 Inbreeding effects, with S_1 per se recurrent selection, 29
 Infrared photography, emergence and growth of dormoats, 459
 identification of legumes and grasses, 331
 Infrared reflectance, for N and digestibility of forage, 45
 Iris, effect of initial and storage temperature on early forcing, 647
Lathyrus (See Pea (flat))
 Leaf genotypes, effect on CO_2 fixation in peas, 665
 effect on yield of peas, 463
 Leaf shape, mathematical model for corn, 1009
 Lentils, cv. Easton, 731
 effect of captan on emergence, nodulation, yield and protein, 727
 Light, effect of high intensity light and CO_2 mist on propagation of woody ornamentals, 965
Linum usitatissimum (See Flax)
Lotus corniculatus (See Trefoil (bird's-foot))
 Lupine, nonprotein nitrogen, 515
 Maize (See Corn)
Malus sylvestris (See Apple)
Medicago sativa (See Alfalfa)
Melilotus officinalis (See Sweetclover (yellow blossom))
Meloidogyne hapla, control in carrots by use of various nematicides, 677
 Minimum tillage, methods evaluated for effect on moisture conservation, mineralization and yield of wheat, 247
 Moisture stress, effect on yield components and protein of wheat, 549
 resistance and avoidance in barley and wheat, 283
 Naphthaleneacetic acid, control of preharvest drop in apples, 87
 Nematicides, control of root-knot nematodes in carrots and population dynamics, 677
 Nematode-trapping fungi, penetration of nematodes by *Arthrobotrys*, *Dactylaria* and *Monacrosporium* species, 785
Nicotiana tabacum (See Tobacco)
 Nitrogen, dry or solution N with triallate for wild oat control, 107
 effect of rate and date on timothy, brome grass and reed canarygrass, 619
 effect on aerial mass, root mass, nodulation and nitrogenase in alfalfa, 639
 effect on cold acclimation in winter wheat, 879
 effect on growth, leaf nutrient, concentration and yield of terbacil-treated lowbush blueberries, 961
 effect on nitrate accumulation of crested wheatgrass, Altai and Russian wild ryegrasses, 735

- effect on yield and digestibility of crested wheatgrass, Russian and Altai wild ryegrasses, 609
- effect on yield components and protein of wheat, 549
- Nitrogen (nonprotein), in grain legumes, 515
- Oats, effect of cultivar and seeding date on forage yield and chemical composition, 633
- effect of soil moisture, seeding date and weed cover on yield, 851
- genotype-environment interactions for yield, 255
- shattering losses after combine ripeness, 25
- Oats (wild), control with propanil or propanil/MCPA, 383
- effect of triallate with dry and solution N, 107
- NaOCl viability test with different types of dormancy, 115
- Ornamentals (woody), effect of CO₂ mist and high intensity light on propagation, 965
- Paraquat, desiccant on wheat, 909
- Pasture, compared to silage for forage and milk production, 915
- Peaches (ornamental), cv. Harrow Candifloss, 157
- cv. Harrow Frostipink, 157
- cv. Harrow Rubirose, 157
- Peas, automated recording of fruit pressure tests, 751
- Peas, CO₂ fixation in leafed, leafless and semi-leafless, 665
- cv. Finale, 1001
- effect of shading, on bleaching of dry green seeds and on quality, yield and seed weight, 213
- nonprotein nitrogen, 515
- yield of near-isogenic leafed, leafless, semi-leafless and reduced stipule lines, 463
- Pea (flat), nonprotein nitrogen, 515
- Phalaris arundinacea* (See Canarygrass (reed))
- Phaseolus lunatus* (See Bean (lima))
- Phaseolus vulgaris* (See Beans)
- Phleum pratense* (See Timothy)
- Phosphorus, effect on cold acclimation in winter wheat, 879
- Photoperiod, effect on growth of shielded aerial stems of Kentucky bluegrass, 653
- Photosynthetic rate and seed yield in soybeans, 181
- Phytophthora megasperma*, effect on yield and survival of alfalfa, 955
- Picloram, residue levels need to prevent establishment of leafy spurge seedlings, 661
- Pinegrass, effect of successive years of simulated grazing on growth, 939
- Pisum sativum* (See Peas)
- Plastic mulch, effect on cucumber yield and soil temperature, 683
- Poa pratensis* (See Bluegrass (Kentucky))
- Polyploidy, disease resistant safflower, 219
- Populus tremuloides*, control in newly seeded rangeland, 401
- Potassium, effect on cold acclimation in winter wheat, 879
- Potatoes, effect of planting date on yield and quality, 417
- Predicted yield, based on climatic vectors in corn, 293
- Propanil, control of wild oats, green foxtail and tartary buckwheat using tank mixtures with barban, diclofop, difenzoquat and flumprop, 383
- Protein, early generation selection in *Glycine max* × *G. soja* crosses, 901
- effect of N, temperature and duration of moisture stress in wheat, 549
- Prunus persica* (See Peaches)
- Prunus* (See Weed biology)
- Pteridium aquilinum*, control with asulam in lowbush blueberries, 475
- Rangeland, effect of fertilizers and herbicides on new seedings, 401
- Rape, effect of atrazine on the Hill reaction in chloroplasts of resistant and susceptible, 723
- effect of seeding date and rate on seed yield and growth traits, 185
- on seed yield and yield components, 175
- erucic acid alleles, in *oleracea* genome, 199
- flower and pod development, 275
- pod abortion and potential for yield component compensation, 275
- Rape (turnip), effect of atrazine on the Hill reaction in chloroplasts of resistant and susceptible, 723
- flower and pod development, 275
- performance of a sub-species hybrid, 895
- pod abortion and potential for yield component compensation, 275
- Ravenala madagascariensis*, fatty acid and sterol content of seed and aril oil, 691
- Rhizobium leguminosarum*, effect of captan on nodulation, yield and protein content of lentils, 727
- Rhizobium meliloti*, effect of N and S on nodulation and nitrogenase of alfalfa, 639
- Rhizobium*, effect of salinity on infection, nodula-

- tion and growth of soybeans, 231
- Rhododendron, cv. Minas Snow, 1023
- Rice (wild), chemical composition, 437
- Rosa acicularis*, control in newly seeded range-land, 401
- Rutabagas, effect of harvest time and storage on sugars and eating quality, 167
- Rye (winter), cv. Animo, 161
- cv. Muskateer, 993
- effect of flooding pretreatment on cold hardiness in ice encasement, 507
- effect of salt stress on fall growth and acclimation, 225
- Safflower, disease resistant allopolyploid from *C. tinctorius* \times *C. lanatus*, 219
- Salt stress, effect on cold hardiness of winter wheat, 543
- effect on fall growth and acclimation of winter wheat and rye, 225
- effect on rhizobial infection, nodulation and growth of soybeans, 231
- Secale cereale* (See Rye)
- Seeder for small soybean plots, 1013
- Seed size, effect on germination, vigor, electrolyte leakage and establishment in bird's-foot trefoil, 337
- Seed viability test, NaOCl, tetrazolium and germination of dormant wild oats, 115
- Selection for a performance index in corn, 29
- for cross pollination in barley, 17
- Selection (early generation), for protein in *Glycine max* \times *G. soja* crosses, 901
- Selection (mass), predicted vs. simulated response, 1
- Selection (S_1), effect on inbreeding in corn, 29
- predicted vs. simulated response, 9
- Setaria viridis* (See Foxtail (green))
- Shading, effect on bleaching of dry green pea seeds, 213
- effect on ^{14}C movement through soybean leaves, 205
- Shattering losses in barley, oats and wheat, 25
- Silage, compared to pasture for forage and milk production, 915
- quantity and quality of effluent losses from high moisture grass, 307
- Simazine, effect of annual applications in mature apple orchards, 325
- herbicide rotation for weed control in mature apple orchards, 407
- Snow trapping, effect on moisture conservation and utilization, 241
- Soil temperature, estimation on cropped land from temperatures in air or under grass, 565
- Solanum tuberosum* (See Potatoes)
- Sorghum, effect of seeding date and rate on grain yield and agronomic traits, 265
- grain yield response to irrigation and fertilizer, 837
- seasonal water requirement, 837
- water-use efficiency on dryland, 37
- Soybeans, early generation selection for protein in *Glycine max* \times *G. soja* crosses, 901
- effect of leaf age and shading on movement on ^{14}C through leaves, 205
- effect of salinity on rhizobia infection and nodulation, 231
- photosynthetic rate and seed yield, 191
- reproductive abortion, yield components and N content in early cultivars, 499
- small plot seeder, 1013
- Squash, effect of fruit development on vegetative growth, 673
- Statistical analysis, presentation of experimental results, 799
- Sterol, content of seed and aril oil of *Ravenala madagascariensis*, 691
- Sugarbeet, relationship between cell size, yield and sucrose %, 447
- Sulphur, effect on aerial mass, root mass, nodulation and nitrogenase in alfalfa, 639
- Sweetclover (yellow blossom), cv. Norgold, 1019
- Temperature, effect of initial and storage temperature on early forcing of iris, 647
- effect of soil heating on chrysanthemums, 345
- effect on growth of shielded aerial stems of Kentucky bluegrass, 653
- effect on yield components and protein of wheat, 549
- Terbacil, effect of annual applications in mature apple orchards, 325
- effect on growth and yield of lowbush blueberry, 61
- effect on growth, leaf nutrient concentration and yield of N fertilized lowbush blueberries, 961
- herbicide rotation for weed control in mature apple orchards, 407
- Timothy, cv. Salvo, 171
- effect of rate and date of N, 619
- Tobacco, cv. Delhi, 76, 791
- cv. Nordel, 795
- effect of virus infection on soluble proteins and enzymes, 135
- mineral composition of soil and leaf samples from normal and grey tobacco, 703

- Tomatoes, cv. Basketvee, 771
 cv. Ontario Pink 774, 779
 cv. Ontario Red 775, 779
 cv. Veebrite, 771
 cv. Veemore, 777
 cv. Veepick, 769
 cv. Veepro, 773
 cv. Veeroma, 773
 effect of transplant stem diameter on yield and yield components, 413
 grafting onto *Fusarium oxysporum* f. sp. *radicis-lycopersici* resistant rootstocks, 1027
- Trefoil (bird's-foot), cv. Cree, 163
 effect of seed size on germination and establishment, 337
 seeding year management of mixtures with alfalfa, 929
- Triallate, applied with dry and solution N for wild oat control, 107
 residues in alfalfa and companion crops of wheat and barley, 765
- Triticale (spring), cv. OAC Triwell, 997
 Triticale (winter), cv. OAC Wintri, 995
Triticum aestivum (See Wheat)
Triticum turgidum (See Wheat (*durum*))
- Vaccinium angustifolium* (See Blueberry (lowbush))
- Variances, dry matter yield in alfalfa, 313
- Vernolate, effect of soil placement for control of *Equisetum arvense*, 971
- Vicia faba* (See Faba bean)
- Vigna radiata* (See Bean (mung))
- Virus, effect on soluble protein and enzymes of tobacco, 135
- Water status, effect of evapotranspiration in alfalfa, 601
- Water-use efficiency, comparison of barley and sorghum, 837
 dryland barley, wheat and sorghum, 37
- Weed biology, *Cicuta douglasii*, 93
Cicuta maculata, 93
Cicuta virosa, 93
Equisetum arvense, 123
Hypochoeris radicata, 365
Prunus serotina, 977
Prunus virginiana, 977
- Wheatgrass (crested), effect of N and date of first cutting on yield and digestibility, 609
 effect of seeding rates and row spacings alone or in alternate rows with alfalfa, 711
 nitrate accumulation, 735
- Wheatgrass (intermediate), cv. Clarke, 467
- Wheat rotations, effect of snow trapping on moisture conservation, utilization and moisture use efficiency, 241
- Wheat, cv. Benito, 145
 cv. Columbus, 147
 cv. Napayo, 143
 duration of dry matter, carbohydrate and protein accumulation in the seed, 525
 effect of harvest time and drying method on quality and grade of hard red and soft white, 803
 effect of N, temperature, growth stage and duration of moisture stress on yield and protein, 549
 effect of paraquat, diquat and glyphosate on preharvest drying, 909
 effect of soil moisture, seeding date and weed cover on yield, 851
 evaluation of seed growth, 525
 genotype-environment interactions for yield, 255
 inheritance of seed coat color, 719
 moisture stress resistance and avoidance tests, 283
 severity of sprouting and distribution of amylase levels in pilot mill streams, 817
 shattering losses after combine ripeness, 25
 water-use efficiency on dryland, 37
- Wheat (*durum*), association of glume color with gluten strength and gliadin protein, 149
- Wheat (winter), cv. Gordon, 455
 effect of flooding pretreatment on cold hardiness in ice encasement, 507
 effect of N, P and K on cold acclimation, 879
 effect of salt stress, on cold hardiness, 543
 on fall growth and cold acclimation, 225
 vomitoxin and zearalenone production by *Fusarium graminearum*, 811
- Wild ryegrass (Altai), effect of N and date of first cutting on yield and digestibility, 609
 nitrate accumulation, 735
- Wild ryegrass (Russian), effect of N and date of first cutting on yield and digestibility, 609
 effect of seeding rates and row spacings alone or in alternate rows with alfalfa, 711
 nitrate accumulation, 735
- Yield components, compensation in rape and turnip rape, 275
 effect of N, temperature and duration of moisture stress in wheat, 549
 effect of seeding date and rate in rape, 175
 effect of transplant stem diameter of tomatoes, 413

variation in early soybeans, 499
Yield, genotype-environment interactions in cere-
als, 255

Zean mays (See Corn)

Zizania aquatica (See Rice (wild))